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**How social movements mobilize action within and across nations to promote solidarity
with refugees**

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Abstract

When and how do social movements form to mobilize action across national boundaries? In the context of the 2015 movement to support Syrian refugees, we develop an integrative model of transnational social movement formation shaped by pre-existing world-views (SDO and RWA) and social media exposure to iconic events, resulting in an emergent group consciousness (“we are”, “we believe”, “we feel”). Group consciousness is, in turn, the proximal predictor of solidarity with refugees. Participants were from six countries: Hungary ($N=267$), Romania ($N=163$), Germany ($N=190$), the United Kingdom ($N=159$), the United States ($N=244$) and Australia ($N=344$). Multi-group structural equation models confirmed that group consciousness, shaped by individual differences and exposure to events through social media, was the proximal predictor of solidarity. The subjective meaning of group consciousness varied across samples, reflecting national differences. Results support the importance of considering individual and national differences, and group processes in understanding emergent social movements.

Keywords: social movements, social identity, emotion, ideology, solidarity, collective action, culture

How Social Movements Mobilize Action Within and Across Nations to Promote Solidarity with Refugees

“Social psychological models of collective action in one sense offer compelling explanations for collective action and protest, but in another sense explain little about the actual emergence of action.” (Livingstone, 2014, p.124-125)

Over the last five years, the world has witnessed waves of social change movements that have crossed national boundaries, such as the Arab Spring (McGarty, Thomas, Lala, Smith, & Bliuc, 2014), the movement to arrest Ugandan war criminal Joseph Kony (Kony2012; Thomas et al., 2015), and the Occupy movement (Smith, Gavin, & Sharp, 2015). This paper focuses on a recent, widespread, transnational social movement. In 2015, following years of extreme suffering by refugees, especially those escaping conflicts in Syria and Iraq, there was a widespread increase in efforts by members of the global community to address the plight of refugees, especially those seeking asylum in Europe (Timson, 2015). The increased support for refugees appeared to occur immediately after the widespread social media dissemination of images of the body of a Syrian child, Aylan Kurdi, washed ashore on a Turkish beach on September 15, 2015 (Vis & Goriunova, 2015). The image was popularly shared through social media and is credited with playing an important role in the dramatic social and political changes that ensued (Slovic, Västfjäll, Erlandsson, & Gregory, 2017).

Social psychological science is in a strong position to explain why people participate in such social movements. As van Zomeren, Postmes and Spears (2008) showed, people will act together to support a cause they are committed to, when they perceive that something is wrong, and that they believe can succeed. However, social psychology has been less successful in explaining when these movements will form and how they do so (Livingstone, 2014, above). When does a stance, trend or thread of opinion become a social movement that provides a basis for united action? Similarly, current empirical and theoretical approaches to

collective action are not well equipped to explain international, global, cross-cultural expressions of collective action (van Zomeren & Louis, 2017). How do individual differences in worldviews about how the world should be intersect with exposure to iconic events to generate a social movement spanning many nations?

The current paper takes up these challenges. We adopt an integrative approach, informed by the framework provided by Duncan's (2012) *integrated model of personality and social psychological theories of collective action*, to address these questions about the emergence of the global solidarity movement to support Syrian refugees. We report on the findings from six nations (Hungary, Romania, Germany, the UK, the US, Australia) sampled in the immediate aftermath of the response to the image of Aylan Kurdi.

An Integrative Model of Solidarity with Refugees

The current research builds upon the framework provided by Duncan's integrative model of collective action to develop a model of solidarity with refugees. Duncan's (2012) integrated model brings together research into the role of personality and life experiences in precipitating involvement in social movements, with current theorizing in social psychology about why people engage in collective action. Specifically, the integrated model posits that key individual differences and life experiences act as antecedents to the formation of a group consciousness which, in turn, is the proximal predictor of collective action. We adapt this framework to explore the rapid emergence of transnational solidarity with refugees witnessed in October-November 2015.

Figure 1 provides a conceptual overview of our hypotheses. It shows that we conceive of the solidarity movement ("outcomes") as both *psychological*, reflecting a sense in which members of advantaged nations "stand with" those in the disadvantaged group (in this case, refugees); and *behavioral*, reflecting concerted actions to change the circumstances of a disadvantaged group (by taking solidarity-based collective action; Saab et al., 2015; Thomas,

Mavor & McGarty, 2012). When people discuss solidarity they often invoke spatial metaphors: you “stand with” another, or you are “*in* solidarity” (e.g., Meadows, 2007), and this sense of shared fate with the disadvantaged group is key to current models of political solidarity (Subašić, Reynolds & Turner, 2008). Moreover, the key defining feature of this movement was that the popular support shown for the refugees through social media were instrumental in promoting the political changes that ensued (see Slovic et al., 2017; Vis & Goriunova, 2015). Accordingly, we conceive of solidarity also as including a set of behaviors designed to advance the circumstances of a disadvantaged group (i.e., donating, advocating, volunteering; see Kende, Lantos, Belinszky, Csaba & Lukács, 2017; Saab et al., 2015; Thomas, McGarty, Reese, Berndsen & Bliuc, 2016).

Where did this global solidarity movement come from? Figure 1 shows that we propose that exposure to the image of Aylan Kurdi and the plight of Syrian refugees acted as a signal life experience which, alongside individual differences in legitimizing ideology, promoted solidarity with refugees *through* the formation of group consciousness.

Antecedents to group formation. What are the individual differences most likely to be implicated in longstanding support for (or opposition to) refugees? Here we focus on individual differences in *legitimizing ideologies* such as right-wing authoritarianism (RWA; Altemeyer, 1988) or social dominance orientation (SDO; Pratto, Sidanius, Stallworth & Malle, 1994) (see Figure 1, path a). We expect that higher levels of RWA and SDO will work against a pro-refugee group consciousness (see Stewart et al., 2015). People high in SDO are unlikely to take action because they seek to protect their privileged status; while people high in RWA are unlikely to take action because asylum seekers are perceived to represent a threat to the social order (e.g., Cameron & Nickerson, 2009; Duckitt & Sibley, 2010; Reese, Proch, & Cohrs, 2014). While SDO and RWA are often highly correlated, the Dual-Process

Motivational Model (DPM; Duckitt, 2001) suggests that these are unique, differential predictors of prejudice against lower status or minority groups.

In relation to life experiences, Duncan (2012) articulated a role for broad experiences relating to family background, education and personal experiences. However, watershed moments can also provide the impetus for rapid mobilization (Duncan & Stewart, 2007; Minkoff, 1997). To the extent that iconic events can now be disseminated rapidly through global and social media, these foster what we term *signal life experiences*. Social media events can affect people in similar ways to other forms of direct experience and set in train similar processes to those enacted in off-line settings (e.g., Kende, van Zomeren, Ujhelyi & Lantos, 2016; Thomas et al., 2015). A key difference is that these processes can happen more swiftly and be shared more broadly than was previously possible (Castells, 2012). Social media provide spaces through which people can communicate a sense of grievance about the current status quo, and generate new identities (based on their opinions about how the world should be) through such social interaction (Smith, Thomas, & McGarty, 2015). The widely disseminated image of Aylan Kurdi created a widespread sense of injustice and grievance. The watershed of pro-refugee opinion that ensued in the online discussion provided social validation of views (Turner, 1991) and became a vehicle for group formation (Kende et al., 2016; McGarty et al., 2014; Figure 1 path b).

In sum, key individual differences about what is right and just in the world (path a; SDO and RWA) and signal life experiences (path b; exposure to iconic images of the refugee crisis through social media) are expected to predict psychological group formation. Duncan (2012) broadly conceives of the individual differences and life experiences variables as independent predictors of group formation (as in Figure 1). However, it is also possible that the two interact to explain those who identify as supporters (and develop a group consciousness), versus those who do not. Here, several outcomes are possible based on the

literature. One possibility is that, for people who had entrenched worldviews that opposed the movement of people (high SDO and RWA), exposure to the issue through social media crystallized their non-support (a “polarizing” effect). Such a pattern would help to explain the widespread political polarization that the image provoked (Reese, Rosenmann & McGarty, 2015). On the other hand, there is evidence that the image of Aylan Kurdi effectively mobilized large swathes of the population who had not previously been active on this issue (Smith, McGarty & Thomas, in press). It is therefore possible that the image effectively “converted” those traditionally hostile to refugees, in a similar way that intergroup contact can have especially strong prejudice reduction effects on those high in RWA (but not SDO; Asbrock, Christ, Duckitt & Sibley, 2012). In order to conduct a comprehensive test of the antecedents of group formation, we tested whether legitimizing ideologies and exposure to the image of Aylan Kurdi directly and interactively predict those who came to identify as supporters of refugees (versus those who did not), and a pro-refugee group consciousness.

An emergent group consciousness. Although personality and life experiences may predispose a person towards taking action (or not), current theorizing within social psychology suggests that people will be more likely to become part of a social movement when they see themselves as united with others who share the same goal (Klandermans, 1997). Indeed, current approaches to collective action within social psychology emphasize that supporters must share a collective orientation to righting wrongs, and believe that they have the resources to act effectively (van Zomeren et al., 2008). Duncan (2012, p.781; Duncan, 1999) terms this constellation of factors *group consciousness*, encompassing “social psychological variables related to group identification and common fate, critical analysis of a group’s position in society, and a collective orientation toward redressing power imbalances between groups” (see also Bliuc et al., 2015; Fattori et al., 2015; Thomas et al., 2016). Figure 1 shows that group consciousness is conceptualized as a combination of social identification,

moral emotions that capture a critical analysis of the group's position (guilt, sympathy and outrage) and group efficacy beliefs that reflect the group's beliefs about acting to address power imbalances (Duncan, 2012).

What is the nature of the social identity that underpins the emergent movement? We propose that it is useful to consider social movements as groups based on shared opinions (*opinion-based groups*; Bliuc, McGarty, Reynolds, & Muntele, 2007). The opinion-based group concept is especially helpful where most supporters do not already belong to activist organizations or institutions; in circumstances where supporters are not acting in the interests of a social category that they belong to; and in cases where the longstanding experience of own-group adversity are not met (see Simon & Klandermans, 2001; also McGarty, Bliuc, Thomas, & Bongiorno, 2009). These are the circumstances that allow supporters to 'become the change they want to see in the world' (Smith, Thomas, & McGarty, 2015).¹

People must also believe that their group's actions can be effective in order to undertake coordinated action (van Zomeren et al., 2008) and beliefs about the ability of the group to respond effectively is a key component of group consciousness (Duncan, 2012). Whereas problem-focused coping (group efficacy) focuses attention on the instrumental strategies that are likely to improve the situation, emotion-focused coping regulates the group emotions tied to perceptions of injustice (van Zomeren et al., 2004). Collective action research has typically focused on feelings of anger (e.g. Leach et al., 2006; Mackie et al., 2000) or moral outrage (Thomas & McGarty, 2009) as drivers of action, although other emotions are likely to be implicated in the regulation of disadvantage (van Zomeren et al., 2004) and can capture a critical analysis of the group's position (Duncan, 2012). We therefore consider the role of three moral emotions as reactions to the injustice experienced by Syrian refugees: guilt, sympathy and moral outrage (Montada & Schneider, 1989).

Group-based guilt is an *ingroup-focused* emotion that arises from the appraisal of harm at least partly caused by the group's actions (Leach et al., 2002), promoting behaviors that repair the wrongdoing rather than more wide-ranging forms of social justice action (Iyer et al., 2004; see Thomas, McGarty, & Mavor, 2009b, for a review). Sympathy, on the other-hand, is *outgroup-focused* in that it focusses attention on the plight of the disadvantaged (Leach et al., 2002). Unlike guilt, sympathy does not attribute responsibility to any specific group or agent (Thomas et al., 2009b). Saab et al. (2015; also Thomas & McGarty, 2018) found that sympathy was a predictor of the tendency to support members of a disadvantaged group. Finally, moral outrage is also other-focused but instead of focusing attention on the suffering of the disadvantaged, it directs attention against a third party or authority held responsible for the disadvantage (Leach et al., 2002; Thomas et al., 2009b).

The group consciousness concept therefore effectively captures (opinion-based) social identification, group efficacy and moral emotions (sympathy, guilt, outrage) as indicators of a latent factor (Figure 1). The relationships between these variables are known to be bi-directional (see Thomas et al., 2012; Thomas, McGarty & Mavor, 2009a for a review) and synthesizing the variables in this way allows us to test more complex models than would be otherwise possible. We expect that group consciousness will be the proximal predictor of psychological and behavioral solidarity with refugees (path c, Figure 1).

Social Mobilization Within and Across Nations

The solidarity movement to support refugees in late 2015 was a global, transnational one, affecting social and political changes in the UK, Canada, the US, Australia, Eastern Europe, Western Europe, and beyond. The tensions between local and universal meanings are issues that have been widely considered in cross-cultural research on personality, however, they have not been systematically addressed in collective action research (see Stewart et al., 2015 for an exception). This omission is important because culture (shared systems of

meaning) fundamentally affect the emergence, and manifestation of, collective action (van Zomeren & Louis, 2017; captured in paths e, f, and g respectively, Figure 1). Is the mobilization process anticipated in Figure 1 universal, or were there local (nation-specific) differences? Answering this question raises difficult theoretical and empirical questions (van Zomeren & Louis, 2017).

Theoretically, one advantage of employing Duncan's integrated model is that Duncan (2012, p.784) emphasizes the *phenomenological aspects of collective action*. The group consciousness variable therefore empirically captures the key drivers of collective action (at the group level; i.e., van Zomeren et al., 2008), alongside a theoretical emphasis on the lived experience of group membership too (see Drury, Cocking, Beale, Hanson, & Rapley, 2005). We would expect the phenomenological experience of the group to vary not least because of the diverging (social, political geo-political) circumstances of different nations reacting to the same events (path d, Figure 1). Emotions, in particular, capture the lived experience of politics in people's lives (Leach, 2010). They are markers of the legitimacy and stability of intergroup relations (see Leach et al., 2002) so it follows that emotions will vary where aspects of the intergroup context vary (see Mackie, Smith & Ray, 2008, for a review). As such, the feelings of guilt, sympathy and outrage may act as markers of qualitative differences in group consciousness across nation.

Similarly, it may be that some of the structural paths identified in Figure 1 play a relatively stronger or weaker role in some countries than others, speaking to important cross-cultural variations in the overall mobilization process. There has been shown to be cross-cultural variation in the relations between RWA, SDO and political attitudes respectively (Duriez, Van Hiel & Kossowska, 2005, Figure 1, path f); as well as in the relationship between social media use and the organization of social movements (Harlow & Harp, 2011; Figure 1, path e). Fischer, Becker, Kito and Zayir (2017) observed that cultural structures

relating to self-construal (interdependent versus independent; Markus & Kitayama, 1991) and face concern, shape the form of collective action taken against sexism across different nations (path g).

Empirically, questions about differences in phenomenology and subjective meaning are typically addressed through qualitative forms of analysis (e.g., Drury et al., 2005). We take a different approach and tackle these questions of cross-cultural similarity and difference using tests of measurement invariance (Steenkamp & Baumgartner, 1998). It is recognized that a given construct is stable across culture, and mean-level comparisons (e.g., of group consciousness) should only be made, where the loadings on that latent factor are the same across samples (metric invariant) and the intercepts are the same (scalar invariant; Dimitrov, 2010). By contrast, significant differences in the loadings of a latent factor suggest qualitative differences in the meaning attributed to that construct (Vandenberg & Lance, 2000).

Although establishing measurement invariance is usually viewed as pre-condition for cross-cultural or longitudinal comparisons, we suggest that it might be useful in its own right to map out similarities and differences in the content of a group consciousness latent factor.

However, one tension here is that partial metric invariance is a pre-condition for multi-group structural equation models (Vandenberg & Lance, 2000). That is, a basic level of (configural and partial metric) invariance must hold in order for cross-national comparisons in model paths to be meaningful (see Davidov et al., 2012). The implication is that our statistical methods can accommodate some cross-cultural difference but not absolute differences.

The Current Research

In September-October 2015, we sampled six countries that varied in their proximity to the movement of refugees and political responses to the refugee crisis: Hungary, Romania, Germany, the UK, the US and Australia. Participants were recruited in the aftermath of the response to the picture of Aylan Kurdi, but prior to the November 13 Paris terrorist attacks. In

line with our conceptualization of solidarity as both psychological and behavioural (Figure 1), we adapted a pictorial measure of self-other overlap (Schubert & Otten, 2002) as a measure of the degree to which members of relatively advantaged groups (i.e., nations) experience psychological solidarity with refugees. We also took measures of the degree to which participants had already engaged in behaviors that reflect efforts to improve the circumstances of refugees, the degree to which they intended to in the future, and a measure of observed behavioral support for refugees. We test two sets of hypotheses based on Figure 1. Our research is exploratory in that, in most instances, we do not specify formal a priori hypotheses about the specific pattern of differences across the six samples. Rather, our focus here is on demonstrating the utility of this framework for theorizing and empirically testing cross-cultural differences in the formation and outcomes of social movements.

The first set of hypotheses relate to the antecedents to group formation. Key individual differences about what is right and just in the world (legitimizing ideologies; SDO and RWA, path a) and signal life experiences (exposure to iconic images of the refugee crisis through social media, path b) were expected to predict pro-refugee group consciousness. This emergent, pro-refugee group consciousness is then the proximal predictor of solidarity (see Figure 1, path c).

We tested the antecedents of group formation in two ways. The first was to look at the role of legitimizing ideologies and signal life experiences, and their product (interaction term), in differentiating those identify as supporters of refugees (versus those who did not), controlling for culture. Our analysis tests the competing possibilities regarding the direct and interactive roles of legitimizing ideology and exposure to the iconic image: specifically, whether ideology and exposure do indeed combine to polarize people based along pre-existing positions, or convert those especially hostile to outgroups. In a second substantive test of the antecedents of group formation, we modelled legitimizing ideologies and exposure

to the iconic image as predictors of a latent group consciousness factor using a sub-sample of self-identified supporters. Doing so allowed us to test whether the antecedents to group formation were the same across national context, or whether there was cross-cultural variation in that process (paths e and f). We did not make specific a priori predictions about whether those paths would be the same or different across the six samples. However, one possibility is that the dissemination of the image through social media played a less important role in Hungary where refugees entered as a point of transition and were therefore highly visible in the offline environment (c.f. Harlow & Harp, 2011).

Our second set of hypotheses related to the cross-cultural conceptualization of group consciousness and its relation with solidarity. We expected that the same key components of group consciousness (identification, group efficacy, moral emotions of sympathy, guilt and outrage) would load significantly across nations (demonstrating configural invariance). Moreover, in keeping with the tenets of the social identity approach (Turner, 1991), we predicted that social identification would also be stable (metric invariant) across context, reflecting its central role in motivating collective action (van Zomeren et al., 2008). Thus, the subjective unity and common fate of the movement across great national diversity stems from shared (invariant, universal) group membership as supporters of refugees.

However, in keeping with the ideas articulated above about moral group emotions as markers of intergroup relations, we expect that they (guilt, sympathy, and outrage) and group efficacy would be variant, yielding differences in the meaning of group consciousness (metric non-invariant). There were also expected to be mean level differences (scalar non-invariant) in emotions and efficacy across national samples. Thus, we did not expect to observe full measurement invariance because the measures are themselves sensitive to prevailing social, historical and (geo)political realities. It may be that, for instance, group consciousness is flavored more strongly by feelings of guilt in countries which had previously held retributive

political stances towards refugees (e.g., Australia, Romania, Hungary, and the UK) than in other samples, capturing illegitimate harm for which one's own group is (at least partially) responsible (Thomas et al., 2009b). The need for pragmatism may also be stronger or weaker depending on the national context (e.g., how responsive the political authorities are), and this would be reflected in differences in the loading of efficacy across nations. In this way, we theoretically and empirically account for both a sense of unity across the national borders (generated by a universal or invariant social identification indicator) but also map out potential differences captured by diverging strength of the moral emotions and/or efficacy.

Having identified which of the aspects of the group consciousness construct were the same/different across national contexts, we then test the full model anticipated in Figure 1 using multi-group structural equation models. Cross-national differences in the manifestation of solidarity are reflected in stronger/weaker paths from group consciousness to solidarity on some markers compared to others (path g). Conversely, it was plausible that the model would be generalizable across samples indicating that group consciousness predicted different forms of solidarity relatively universally.

Method

Participants

Data were collected in September-October 2015.² Participants were 1,367 people from six countries: Hungary ($N = 267$), Romania ($N = 163$), Germany ($N = 190$), the United Kingdom ($N = 159$), the United States ($N = 244$) and Australia ($N = 344$). We excluded participants who had missing responses for over 50% of the questions ($n = 136$; primarily people who had clicked on the link but not commenced the survey) or who completed the survey in less than four minutes ($n = 4$) – the sample sizes reported above are the final samples. These samples provide sufficient power to detect small effects (.10), with power = .80 and $\alpha = .05$, in models with one latent variable and eleven observed variables (Soper,

2016). Participants were primarily female (59.47%; 30 people did not report their gender) and the average age was 30.77 ($SD = 15.2$). Table 1 displays the demographic information for each of the samples.

Procedure and Measures

The questionnaire was originally constructed in English and the key items were altered to reflect the relevant country. For the German, Hungarian and Romanian samples the survey was backtranslated by at least two independent translators; disputes were resolved through discussion. In Australia, the US, Romania, and Hungary, data were collected online, while in Germany the data were collected through pencil and paper questionnaires; the UK participants chose to participate either online or via hard copy. In Australia, Romania, the US, and Germany, the sample comprised both members of the general public and students; the Hungarian and UK sample included only students who participated for course credit (Hungary) or as part of routine class activity (UK; see Table 1). In Australia, Romania, and the US, members of the general population were accessed by circulating a link to the questionnaire (titled “Attitudes about the Syrian refugee crisis”) through personal networks and/or posting on the webpages of public forums (e.g., Craigslist). In Germany, participants were approached on campus and in public places of a university town such as the train station and asked if they wished to participate. Participants responded on a 7-point Likert type scale (1 = Strongly disagree, 7 = Strongly agree) unless otherwise indicated below. Please contact the lead author for copies of the questionnaire (and translations) and/or raw anonymized data.

Measures of individual differences and (signal) life experience

Image and (social) media exposure. We considered the role of (social) media in two ways. To avoid experimental demands that could arise from referring directly to the image of Aylan Kurdi, we asked participants whether they had “seen a recent image (photo) of the

refugee crisis that has powerfully affected your views about this issue”; participants responded yes (=2) or no (=1).

Second, to assess exposure to the issue through (social) media more generally we asked two questions to assess both the breadth and depth of exposure. To assess *breadth* (in terms of the range of media) we asked: “What is the main way that you have learned about the recent events of the Syrian refugee crisis?” Participants selected all that applied from television, newspaper, social media, radio, talking to other people, and other media. Participants were allocated a point for each media selected, summed such that the more media selected, the greater the breadth of exposure (values ranged from 0-6). To assess *depth* of exposure we also asked about the time spent engaging with this issue on social media: how much time they had spent in the past week reading online discussions or watching videos about the refugee crisis (None = code 1, 0-15 minutes = 2, 15-30 minutes = 3, 30 minutes-1 hour = 4, 1-3 hours = 5, 3+ hours = 6). We aggregated responses to these two questions to form a second measure of global and social media exposure.

Legitimizing ideology. We used a single item from the social dominance orientation scale (SDO; Pratto et al., 1994) and a single item from the right wing authoritarianism scale (RWA; Altemeyer, 1998). The items were: “It’s OK if some groups have more of a chance in life than others” (SDO) and “The only way our country can get through the crisis ahead is to get back to our traditional values, put some tough leaders in power, and silence the troublemakers spreading bad ideas”. The items were moderately correlated, $r = .32, p < .001$. Since they reflect different motivational states (Duckitt & Sibley, 2010), we retained them as separate predictors in our tests of the model.

Measures of group consciousness

Emotions: guilt, sympathy and outrage. Two items measured the emotions of guilt, sympathy and outrage, respectively. Participants read “Considering the plight of Syrian

refugees, I feel: Sympathetic [compassionate]; guilty [responsible]; outraged [angry]. The internal validity for all three scales was acceptable in each of the samples ($\alpha = .78-.95$ sympathy; $\alpha = .60-.89$ guilt; $\alpha = .84-.92$ outrage).

Group efficacy. Two items measured group efficacy: “Together [national group members] can make a positive difference for Syrian refugees” and “Together [national group members] can improve the outcomes for Syrian refugees”, $\alpha = .88-.98$ for each of the samples.

Social identification. Participants were first asked to respond to a categorical item that assessed self-categorization as a supporter of Syrian refugees. “Please think about how you see yourself in relation to Syrian refugees. Do you identify as a supporter of global action to support Syrian refugees?” Participants responded ‘yes’ or ‘no’. Participants who indicated that they did not identify as a supporter did not complete further measures of pro-refugee social identification. However, if they selected ‘yes’ to the categorical question, participants were then asked to complete further measures of the *degree* of identification. Three items (adapted from Cameron, 2004) measured identification as a supporter of Syrian refugees (only for supporters): “I see myself as a supporter of Syrian refugees”; “I identify with other supporters of Syrian refugees”; “Supporters of Syrian refugees have a lot to be proud of”, $\alpha = .68-.82$ for each of the samples.

Measures of psychological and behavioral solidarity

Psychological solidarity. Participants were presented with seven pictures of two increasingly overlapping circles; one circle was labeled [nation] and the other was labeled Syrian refugees (Schubert & Otten, 2002). Participants read the information that “The circles represent different levels of closeness between the two groups” and were asked to select the picture that best represents how close they, as a member of their national group, feel to Syrian refugees.

Behavioral solidarity: Past, future and observed behavior. We measured behavioral solidarity as past (self-reported) action, future action (action intention) and observed action. Participants responded to four items: “I intend to sign a petition” [and self-report: “I have already ... etc”]; “I intend to support the plight of Syrian refugees by donating money to the cause”; “I intend to post on social media about this issue”; “I intend to volunteer to support refugees”. on 1-7 Likert-type scale indicating their agreement with the intention items, and indicated yes (=2) or no (=1) for the self-report items.³ Scales were internally consistent for future intended action, $\alpha = .62-.84$, for past self-reported action in Australia and the US, both $\alpha = .62$. However, past self-reported actions were not internally consistent in the other samples ($\alpha = .21-.47$), probably because dichotomous data reduce variability (inter-item correlations). Past self-reported action was significantly correlated with both the intended behavior ($r = .59, p < .001$) and observed behavior (see below; $r = .15, p < .001$), providing convergent validity for the scales. Since people with higher scores report performing more of the relevant behaviors, we therefore created the scales as an index of past commitment.

These measures of past and future action were supplemented with a measure of observed behavior. Specifically, participants were told that the researchers would make a donation of US\$1 on their behalf. They were then asked to allocate how much of that US\$1 they would like to be sent to an accredited agency working to assist Syrian refugees, with any remainder to be allocated to an agency working to assist disadvantaged children within [the home nation]. This donation allocation thus constitutes a measure of observed behavioral support for refugees relative to another worthy cause. Researchers made these payments on behalf of participants.⁴

Results

Analytical Strategy

Our analysis comprised three parts. First, we used the entire sample to focus on distinguishing people who saw themselves as supporters of action on refugees versus those who did not. We expected that key individual differences (legitimizing ideology, path a) and media exposure (both to the specific image and overall, path b) would predict psychological group formation both uniquely and, prospectively, in interaction. Therefore, we conducted logistic regression analyses (controlling for non-independence) using SDO, RWA, and media exposure as independent variables to predict whether or not participants self-categorized as a supporter of Syrian refugees (see Figure 1).

In the second and third sections, we included only people who identified as supporters to test the full integrative model of solidarity across the six nations ($n = 955$). This is because people who did not self-categorize as a supporter of refugees did not complete measures assessing the degree of their social identification. The second section tests for the measurement equivalence of group consciousness across nations using tests of measurement invariance following procedures outlined by Vandenberg and Lance (2000; measurement model, path d). In the third section, we used a multi-group structural equation model to test the full integrative model (paths a, b, c), and for national differences in the structural paths (structural model, paths e, f, and g).

In both sections 2 and 3 the multi-group analyses employed a similar strategy. We adopted the preferred forward-testing method (Vandenberg & Lance, 2000), first estimating a baseline model in which all paths, intercepts and latent means were allowed to vary freely, and subsequently testing increasingly constrained models to see if fit significantly improved or deteriorated using tests of the chi-square difference. Invariance in measurement across countries is indicated if the more constrained model/s fit better than when indicators vary

freely across country (section 2, path d). Similarly, evidence that there are different relative weightings of the paths in the model (paths e, f, g) is suggested if the constrained model fit is better than the model where the paths are allowed to vary (section 3). Evidence of good fit is indicated by a non-significant chi-square, a CFI $\geq .95$, a RMSEA $\leq .08$, and a SRMR $\leq .08$.

Preliminary Analyses

Missing values analysis revealed a small amount of data (less than 5% for each variable in all the samples) that were missing completely at random (MCAR; all *ps* .11-.63) except in the German sample, which was not MCAR, $\chi^2(804) = 1001.89$, $p < .001$. Since there was negligible missing data from the German sample (<5%; see Enders, 2010) we nevertheless treated all values using Full Information Maximization Likelihood in MPlus version 7.2. Table 1 displays the means (standard deviations) for the key variables across the six samples.

The Antecedents of Psychological Group Formation

We first conducted multi-level binomial logistic regression exploring the antecedents of psychological group formation to test whether these predicted self-categorization as a supporter (versus not). For completeness, we also tested for interactions between ideology (SDO/RWA) and media exposure (image/overall) using the procedures identified by Aiken and West (1991). Independent variables were centered and interaction terms were created based on their multiplication. Since the data were nested at the nation-level, we controlled for non-independence of observations using the ‘complex’ command in MPlus; doing so allows us to take into account the non-independence of observations using a sandwich estimator but it does not specify a model for the between- nation level (Muthén & Muthén, 1998-2007).

In the first step, social media (image and overall exposure) and ideology (SDO and RWA) terms were entered as predictors of the dependent variable, self-categorization (coded no = 1, 2 = yes). In the second step, we entered the four interaction terms between ideology

(RWA and SDO) and the two media variables. We found support for the idea that legitimizing ideology was a significant negative predictor of membership, $\gamma = -.26$, $s.e. = .06$, $p < .001$ for SDO, $\gamma = -.25$, $s.e. = .03$, $p < .001$ for RWA (path a). Exposure to iconic images marginally predicted self-categorization as a supporter, $\gamma = .13$, $s.e. = .07$, $p = .057$, but overall media exposure did not, $\gamma = -.07$, $s.e. = .09$, $p = .42$ (path b). However, as expected, there was a significant two-way interaction between SDO and media exposure, $\gamma = -.09$, $s.e. = .03$, $p = .009$; there were no other significant interactions (all $ps > .14$). Figure 2 displays the interaction. It shows that overall media exposure did not affect the likelihood of being a supporter for those low in social dominance orientation, unstandardized $\gamma = .06$, $s.e. = .14$, $p = .64$. For those high in social dominance orientation, however, higher social media exposure was associated with a reduced likelihood of identifying as a supporter, unstandardized $\gamma = -.18$, $s.e. = .08$, $p = .02$.

Thus, ideologies that legitimize inequality (RWA and SDO) both directly and, in combination with exposure to the issue through social media, significantly reduced the likelihood that participants self-categorized as a supporter of Syrian refugees (paths a, b). We note that the image predictor was a marginal predictor but may have been weak because it is categorical (yielding a categorical IV predicting a categorical DV) and had truncated range; Table 1 shows that, for all the samples except Germany, the majority of people reported having seen powerful images of the crisis.

Group Consciousness Across Nations: A Test of Measurement Invariance

Our initial test of measurement invariance (path d) specified a latent factor model with five indicators: identification, group efficacy, and the three emotions (guilt, sympathy and outrage). We first estimated the model separately for each of the six samples. Fit was poor for several of the samples and the combined (baseline) chi-square was large and significant, $\chi^2(30) = 84.276$, $p < .001$. Outrage was a non-significant predictor in the

Hungarian and Romanian samples and a weak predictor in the UK sample. Since a similar pattern of zero and non-zero loadings across samples (i.e., configural invariance) must be met in order to conduct subsequent tests of measurement invariance and multi-group models (Steenkamp & Baumgartner, 1998), we removed outrage and focused our test of the emotional predictors of sympathy and guilt. Accordingly, our (revised) initial test specified a latent model with four indicators: identification, sympathy, guilt and efficacy. The results of the tests for each step of measurement equivalence are displayed in Table 2. The details of all the specific models that were tested (i.e., whether each of the indicators was different within each level of measurement invariance) can be found in the supplementary materials.

We first tested the model with unconstrained factor loadings and intercepts. Fit was acceptable to excellent for all the samples, $\chi^2(2) = .82 - 7.05$, and the combined (baseline) chi-square was moderate and only marginally significant, demonstrating configural invariance (Model 1, Table 2). Thus, the model is valid for each of the national samples.

In order to test whether the weightings of indicators were the same or significantly different (metric invariant), we next compared this model with one in which the parameters for the indicators were constrained to be the same across the six samples (path d). In order for the model to be identified, we had to set one path to unity: we selected identification because it had the most similar unstandardized regression weights across nations (see Dimitrov, 2010). Overall model fit deteriorated (Model 2a, Table 2). The difference between Model 1 and 2a was significant, $\Delta\chi^2(15) = 27.32, p = .03$, confirming that the meaning of the latent variable was different for the different samples (metric non-invariance). The best fitting model (see Model 2b, Table 2) held sympathy and identification invariant across samples, with guilt and efficacy allowed to differ across samples (see supplementary analysis for details). Thus, the factor loadings are identical (invariant) for sympathy and identification across the national samples, but differ substantively across nations for guilt and efficacy. This

suggests that the meaning of the latent construct (group consciousness) is different across national contexts because it is indicated more strongly by guilt/efficacy in some places than others.

We next sought to establish whether the intercepts were the same across samples (scalar invariance). To do so we compared the best-fitting metric invariance model (Model 2b) with a model in which the intercepts were constrained to be the same. Overall model fit deteriorated dramatically (see Model 3, Table 2), and the difference between Model 2a and 3 was significant, $\Delta\chi^2(20) = 437.33, p < .001$, indicating that the levels of the items are different across the samples (scalar non-invariant). That is, the mean levels of the underlying items (guilt, efficacy, identification, sympathy) varied significantly across samples. The best fitting scalar invariant model allowed all four items to be different (see supplementary file) and was thus identical to Model 2b.

The final measurement model incorporated partial measurement invariance (for the factor loadings of sympathy and identification) but allowed the other factor loadings, intercepts and residual variances to vary freely (path d). Substantively, the model captures that identification and sympathy were stable across national context, but that guilt and efficacy flavored the group consciousness more strongly in some nations than others (see Figure 3); there was variation in the levels of each of the items across nation. This partial measurement invariance allows for tests of the structural model but precludes cross-cultural comparisons of mean levels of the latent variable group consciousness (Dimitrov, 2010).

Testing the Integrative Model across Nations: Multi-group Analyses

Having identified a suitable measurement model for the group consciousness factor, we adopted a similar approach in our tests of the full structural model. We first tested a baseline model in which all the structural paths were freely estimated. RWA, SDO, exposure to the image, and social media exposure predicted the group consciousness latent factor (that

was indicated by identification, guilt, sympathy and efficacy). Group consciousness predicted psychological solidarity, as well as past, future and observed solidarity action⁵. Fit was acceptable, $\chi^2(258) = 424.40$, $p < .001$, RMSEA = .07, CFI = .93. SRMR = .06, though the CFI indicated that there was scope for improvement. Inspection of the standardized pathways showed that RWA was not a unique predictor of group consciousness in any of the samples except for Hungary ($\beta = -.25$, $p = .01$). Given that it played a muted independent role in these data, we removed RWA from our test of the integrative model.

Our test of the model (without RWA) again demonstrated acceptable fit, $\chi^2(216) = 360.67$, $p < .001$, RMSEA = .07 [90% CI .05, .08], CFI = .94, SRMR = .06. The chi-square statistic and indices based on its distribution (the CFI) are sensitive to large sample sizes, and the other indices suggested good fit (the RMSEA and the SRMR; Kline, 1998). This therefore became our baseline model. Figure 4 shows the pattern of standardized regression weights when they are not constrained to be the same for the six samples. Figure 4 shows that exposure to the iconic image and social media are weak positive predictors of group consciousness (path b), whilst SDO was a weak-moderate negative predictor (path a). Group consciousness was strongly indicated by social identification, guilt and sympathy, and more weakly indicated by group efficacy. Group consciousness, in turn, was a moderate to strong predictor of psychological solidarity, past, observed and future solidarity action (path c).

Having established that the model fit with the different samples, we next compared this baseline model with one in which the paths were constrained to be the same across the six samples as a test of cross-cultural difference (paths e, f, and g). Overall model fit deteriorated, $\chi^2(251) = 414.48$, $p < .001$, RMSEA = .07, CFI = .93, SRMR = .10. The difference between the two models was significant, $\Delta\chi^2(35) = 53.81$, $p = .02$, confirming that there are differences in the relative weightings of the paths in the model across the different

national samples. That is, there is evidence of cross-national variability in the model (supporting paths e, f, g, Figure 1).

In order to determine the nature of those differences we systematically released each of the pathways to see if fit improved significantly compared to the baseline model. There was no evidence of cross-national variability for the paths from SDO to group consciousness (path f, $p > .05$) and overall media exposure to group consciousness (path e, $p > .05$), however fit improved significantly for the path from image to group consciousness, $\Delta\chi^2(30) = 46.44$, $p = .03$ (path e). This suggests that SDO and social media exposure were related to group consciousness in a relatively universal fashion but that there were national differences for the relationship between exposure to the image and group consciousness.

In terms of the relationship between group consciousness and solidarity outcomes (path g), fit also improved when the paths from group consciousness to psychological solidarity, $\Delta\chi^2(30) = 48.16$, $p = .02$, as well as past, $\Delta\chi^2(30) = 48.89$, $p = .02$, future $\Delta\chi^2(30) = 48.05$, $p = .02$, and observed behavior $\Delta\chi^2(30) = 52.66$, $p = .01$ were released, indicating that there is variation in all of these paths across the samples. Our final tests constrained paths to be similar/different based on the weightings observed in Figure 4. Holding similarly weighted paths to equality (but allowing them to differ across countries) did not significantly improve fit above the models in which all the paths varied freely. Since including the additional constraints did not improve fit, we retained the more parsimonious model for each pathway (allowing them to vary freely), $\chi^2(226) = 389.48$, $p < .001$, RMSEA = .07 [90% CI .06, .08], CFI = .93, SRMR = .07. Overall, Figure 4 provides good support for the key hypothesized paths in the integrative model; it also illustrates that there was both cross-cultural variability and stability in the mobilization process.

Discussion

When do social movements form in relation to iconic events? How do these processes transcend national, cultural and geographical boundaries to effect global social change? Our research considers behavioral and psychological solidarity with Syrian refugees as an outcome of individual differences in legitimizing ideology, exposure to iconic events through global and social media, and group processes (the formation of a group consciousness). Across six different national samples (with diverging geo-political obligations and responses to the crisis) obtained in the aftermath of the global reaction to the image of Aylan Kurdi, we showed that social movements form when exposure to iconic events through social media intersect with pre-existing world-views (especially social dominance orientation) to catalyze the formation of new groups (paths a, b, Figure 1). These new groups were defined along opinion-based fault lines: people who support, or do not support, action to assist Syrian refugees (Bliuc et al., 2007).

We also sought to tackle one of the key challenges raised by these transnational phenomena: how can we understand those factors that promote a subjective sense of common cause, whilst at the same time acknowledging variation in those processes across national contexts? To that end, we adapted Duncan's conceptualization of group consciousness as a latent factor indicated by social identification, moral group emotions, and group efficacy beliefs. We adopted methods routinely taken up in cultural psychology to show that the same pattern of indicators universally (significantly) captured group consciousness (configural invariance), and also that social identification and sympathy were two factors that were stable across the six samples considered here (they showed metric invariance). However, the importance of feelings of guilt and efficacy beliefs to the group consciousness factor varied systematically across the samples, producing a group consciousness that was different across nations (metric non-invariant). Thus, the meaning of the group consciousness was flavored

more strongly by guilt in Germany and the UK; and by relatively greater efficacy in the UK and Australia (path d, Figure 1).

Finally, we also sought to consider whether the processes of mobilization were the same or different across national contexts (van Zomeren & Louis, 2017). Here we again found evidence of cross-cultural stability and variability in the importance of specific paths. Exposure to iconic images of the crisis through global and social media was more important in the formation of a group consciousness in Romania, the UK and the US, and relatively less important for participants in Australia, Germany and Hungary (path e, Figure 1). Figure 4 shows that the strength of the relationship between media exposure and group consciousness, and SDO and group consciousness, respectively, varied from zero to moderate. However, the tests of the full model included only self-assigned supporters so the variability in the independent variables was likely to have been restricted relative to tests that included the full sample. Similarly, the strength of the relationship between group consciousness and solidarity outcomes (psychological and behavioral) was also different across national contexts (path g, Figure 1). Psychological solidarity was more strongly associated with group consciousness in Hungary; past self-reported action was more important in the US and Australian samples, whilst future intention was less central in the German and Hungarian samples (see Figure 4). Overall, we found strong support for our hypotheses about the ways in which individual differences, life experiences and group processes combine to explain how social movements form within and across nations.

Why Now? Discontinuity in Social Movement Formation

Livingstone (2014) considered whether social psychological models can tell us something about the point at which protest will emerge, ultimately concluding that existing models tell us little about the tipping points in collective action (see also McGarty et al., 2014). The current research conceives of rapid social movement formation as a process of

novel group formation, arguing that in order to understand the generation of new phenomena we need to understand identities formed based on opinions about iconic issues or events (Bliuc et al., 2007; Thomas et al., 2015). Moreover, we need to understand what makes one person more likely to experience group formation, and how these individual differences are shaped by events in the social world (Duncan, 2012).

In terms of differentiating those who identified as supporters (versus those who do not), being low in legitimizing ideologies (SDO and RWA) was associated with increased likelihood of self-categorizing as a supporter. People who hold entrenched worldviews that support hierarchies (SDO) or see the movement of people as a threat (RWA) are less likely to be a part of the mobilization potential (path a, Figure 1; Klandermans, 1997; Stewart et al., 2015). Moreover, exposure to powerful images such as that of Aylan Kurdi, appears to undermine group formation for those high in social dominance orientation (Figure 2; cf. Asbrock et al., 2012). Thus, although social media plays an important role in predicting group consciousness amongst those who are self-identified supporters, it seems to polarize support and opposition on both sides of the debate.

It has long been observed that specific iconic events (such as those initiated by Rosa Parks, the Greensboro Four or Mohamed Bouazizi) form signal moments, which catalyze social movements (Castells, 2012; Minkoff, 1997). Such events represent watershed moments in social movement formation, and social media provide ways to rapidly disseminate these events, providing spaces for people to validate their views across geographical, cultural and national boundaries (Smith, Thomas & McGarty, 2015). Contrary to accounts that emphasize the superficial nature of engagement online, the popular sympathy generated by the image of Aylan Kurdi provoked change in many countries, confirming the power of social media to shape social change at a global level (path b, Figure 1; Castells, 2012; Smith, McGarty & Thomas, in press; c.f. Morozov, 2011).

How Social Movements Mobilize Action Within and Across Nations

Our theories and methods need to consider both the factors that promote unity across transnational diversity and also those factors that imbue group membership with a local (national) flavor. With the exception of outrage (which did not play a uniformly important role), we found that the hypothesized markers of group consciousness were valid for each of the national samples (configural invariance). Social identification – psychological membership of a group of people who support refugees – was also shown to be a universal (metric invariant) component of the emergent group consciousness supporting the core tenant of the social identity approach that social identification promotes perception of similarity and unity in the social movement (Turner, 1991). However, cognitive measures of social identification does not allow for a consideration of the ways in which the experience of group membership may differ, depending on culture, language, and history as well as current socio-political realities. Whilst the social psychological literature on collective action scholarship recognizes the importance of social identification, it has engaged rather less with the phenomenology of group membership (Duncan, 2012; but see, e.g., Drury et al., 2005, also Thomas et al., 2009a). It was here that beliefs about the nations' ability to act effectively (as a coordinated group), as well as emotions that indicate a critical analysis of the (national) group's position (guilt) more meaningfully provide information about cross-cultural variation in the group consciousness in the different samples (path d, Figure 1).

The results suggested that feelings of guilt and efficacy beliefs played a relatively stronger/weaker role in explaining the group consciousness across national contexts. Whilst it is tempting to provide a post-hoc explanation for these differences in terms of the prevailing social, geo-political contexts, it is important to note that there can be many different reasons for measurement invariance (see Byrne & Watkins, 2003, for a review). Differences can reflect “real” (genuine) cross-cultural differences and/or be due to measurement error or

differences in methodology (sampling, question translation) and it is not straightforward to disentangle these effects (see Byrne & Watkins, 2003; van Zomeren & Louis, 2017). In this case, guilt loaded onto the group consciousness factor to a relatively greater degree in Germany and the UK, suggesting the possibility of different historical (Germany) and/or current political (UK) realities (Vis & Goriunova, 2015). Similarly, the importance of instrumental coping (efficacy beliefs; van Zomeren et al., 2004) was stronger or weaker, possibly reflecting the real barriers to action that confronted the supporter in that context. Future research should include sufficient numbers of Level 2 units (national groups) to use multi-level structural equation models to differentiate item bias from “genuine” cross-cultural difference (as suggested by Davidov et al., 2012).

We also considered whether the mobilization process outlined in Figure 1 was stable (universal) across the six countries, or whether there was cross-national variation. The results suggested that there was variation in the importance of the iconic image in explaining group consciousness (path e, Figure 1) but also that the form of the solidarity (path g, Figure 1) differed across context. However, individual differences played a stable role (path f, Figure 1) and the nature of social media exposure was also invariant (path e, Figure 1). Again, post-hoc explanations are not appropriate given that we cannot rule out differences in sample and methodological artefacts for these effects. It may be that the social media exposure was stable across cultures because the phenomena itself is not bounded by national borders.

Nevertheless, we believe that this method of theoretically and empirically accounting for cross-cultural similarity and difference using tests of measurement and structural invariance holds great promise. Qualitative approaches can provide a rich perspective on the lived experience of group membership (e.g., Drury et al., 2005; Stuart, Thomas, Donaghue & Russell, 2013) but may also be fraught with difficulty in cross-cultural settings where many national samples are involved. We therefore believe that the method of using tests of

measurement invariance could form a useful addition to the social psychological toolkit. This method could also be more widely adopted in social psychological research generally to model, for example, changes in identity content pre- and post- experimental intervention (e.g., group interaction; Thomas & McGarty, 2009), or qualitative changes in the meaning of group membership as a group politicizes or radicalizes (e.g., Thomas et al., 2014).

Limitations and Future Directions

SDO and RWA were each measured with a single item and we do not know if findings would differ had we used the full scales. Given the muted findings for RWA in explaining group consciousness, it may also be the case that RWA is more strongly implicated in the emergence of anti-refugee group consciousness rather than undermining refugee support per se. It is also the case that, due to a lack of Level 2 units (i.e., national samples) we could not test a full multi-level structural equation model. Finally, our samples were not representative and therefore it was not appropriate to make inferences about sample intercepts (scalar invariance) and/or compare overall mean-level differences across samples.

The research is strengthened by an integrative focus on how individual differences, exposure to iconic events as signal life experience, and group processes (group consciousness) intersect to predict solidarity with refugees. Beyond group processes per se (van Zomeren et al., 2008), this integrative focus is important because it provides a more complete picture of *the kinds of people* who engage in action for social change and how they are shaped by events in their social world. In terms of future research, political affiliation (see Bliuc et al., 2015), personal political salience (Duncan & Stewart, 2007), or values (Schwartz, 1992) may also act as alternative (individual differences) resources for the building of a group consciousness (see Thomas et al., 2016). In terms of life experiences and other threshold events (and beyond those considered by Duncan, 2012) it is possible that positive intergroup contact with members of the disadvantaged or minority group may also

act to catalyze action (Pettigrew, 1998). Other identities, for example, dual identity as a national and global citizen (Reese, Berthold, & Steffens, 2016), or human-level identity (McFarland, Webb & Brown, 2012) may also be implicated in the group consciousness factor. Although we have applied this framework to understanding a pro-social response (global solidarity), we also expect that it could be readily adapted to explore the processes underscoring the emergence of hostile social movements (Thomas, Smith, McGarty & Postmes, 2010).

Finally, the approach that we have adopted here might be termed a structural one in that we seek to identify a pattern of predictors of solidarity within and across diverging national contexts. However, many of the hypotheses speak to psychological transformation (group formation) and future research could examine the mechanisms or processes associated with change using dynamic methods that show experimentally how individual differences find force in group processes (see Thomas, McGarty & Mavor, 2016, p.146, for a discussion of ‘macro’ structural models and ‘micro’ transformational models in collective action research). Indeed, given that our focus here was on providing a theoretical and methodological framework for identifying universal and nation-specific differences in social mobilization, we did not make a priori predictions about the specific differences across nations. Future research may seek to fill this gap and incorporate insights relevant to cross-cultural psychology into theorizing about collective action (e.g., Fischer et al., 2017).

Concluding Comments

The current research has considered the ways that current social events and political realities become part of a group consciousness, to contribute to world-changing social movements. The events of the Arab Spring, Occupy, the emergence of ISIS, and the global solidarity witnessed in response to the image of Aylan Kurdi all attest to the point that world-changing social movements can emerge from out of nowhere, to address wrongs that have

persisted for years or even decades prior. The recent history of the world has been about emerging, interconnected popular social movements. Social psychology is in a strong position to explain these events and in doing so contribute to a truly consequential psychological science.

Footnotes

¹ Opinion-based identities can be politicized identities, in the sense that they incorporate an awareness of the power relations in which a struggle is embedded (Simon & Klandermans, 2001); however, in this case, the term ‘politicized identity’ does not sufficiently differentiate supporters of refugees from opponents of refugees, both of whom can both be acting in terms of a politicized identity but advocate fundamentally different visions of social relations.

² Specifically, in Australia the data were collected between 16th September and 5th October; in the United Kingdom between the 1st and 8th October; in the United States between the 22nd September and 8th October; in Romania between the 15th October and 26th October; in Hungary on the 21st September; and Germany between the 29th September and 25th October.

³ In the Romanian sample there was a data collection anomaly such that participants responded to the self-report items on a 7-point Likert type scale (Strongly Disagree-Strongly Agree), instead of on a binary (yes/no) scale as in the other samples.

⁴ Payments were made as directed by participants to the International Red Cross, as well as the national division of Save the Children for all of the countries except for Hungary, for whom a donation was made to the Polgar Foundation for Equal Opportunities.

⁵ For completeness, we also tested a model which included the interaction terms between image and SDO, RWA; and overall media exposure and SDO, RWA, as predictors of group consciousness in each of the samples. None of the interaction terms were significant except for that between overall media exposure and SDO in Romania ($\beta = .58, p < .001$).

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Table 1. Demographic information and descriptive statistics (mean, standard deviations) for the key variables for the six samples.

	Hungary	Romania	Germany	United Kingdom	United States	Australia
	<i>N</i> = 267	<i>N</i> = 163	<i>N</i> = 190	<i>N</i> = 159	<i>N</i> = 244	<i>N</i> = 344
% Female	78.7	76.7	51.1	82.4	69.7	23.3
Age	21.22 (2.48)	37.4 (10.80)	27.51 (9.55)	18.5 (1.48)	40.08 (21.97)	36.5 (15.07)
% Students	100	100	36.3	96.9	42.2	14.2
% Supporters	37.5	44.2	81.1	90.6	82.4	82.6
Social dominance	2.89 (1.61)	3.62 (1.77)	2.63 (1.50)	2.53 (1.49)	2.65 (1.72)	2.64 (1.79)
Right-wing authoritarianism	3.26 (1.75)	3.70 (1.93)	2.81 (1.62)	2.32 (1.34)	2.65 (1.81)	2.88 (2.09)
% People who have seen image	64.4	54.6	29.5	68.6	72.5	78.2
Overall media exposure	3.06 (.76)	2.21 (0.92)	2.89 (1.06)	2.01 (0.76)	2.29 (0.93)	3.09 (0.97)
Social identification	5.61 (0.75)	5.04 (0.98)	4.80 (0.96)	5.47 (0.87)	5.40 (0.99)	6.03 (1.00)
Group efficacy	3.42 (1.38)	3.82 (1.68)	4.85 (1.50)	5.86 (1.09)	5.44 (1.30)	5.71 (1.66)
Guilt	3.05 (1.37)	2.86 (1.34)	3.78 (1.31)	3.70 (1.48)	3.45 (1.71)	3.77 (1.97)
Sympathy	4.54 (1.29)	5.36 (1.37)	5.69 (1.07)	6.27 (0.81)	5.95 (1.21)	6.05 (1.64)
Outrage	3.38 (1.56)	3.80 (1.67)	4.21 (1.69)	5.17 (1.32)	5.17 (1.61)	5.45 (1.77)
Psychological (self-other) solidarity	2.61 (1.35)	2.54 (1.45)	3.36 (1.33)	2.94 (1.50)	3.06 (1.70)	3.61 (2.07)

Past (self-reported)	1.95	1.94	1.83	1.82	1.82	1.56
solidarity	(0.13)	(0.14)	(0.20)	(0.23)	(0.26)	(0.32)
Future (intended)	3.26	3.24	3.78	4.63	4.37	4.98
solidarity	(1.35)	(1.43)	(1.12)	(1.17)	(1.36)	(1.75)
Observed solidarity	4.66	5.60	7.44	7.75	8.30	8.47
(allocation)	(2.89)	(3.73)	(2.93)	(3.34)	(3.65)	(3.56)

Table 2. Fit statistics for tests of measurement invariance for the group consciousness factor across the samples

		Interpretation of the different steps of measurement invariance testing	$\chi^2 (df) p$	RMSEA	CFI	SRMR
Model 1	Configural invariance	Same pattern of significant indicator to factor loadings across samples. The model is valid for each of the nations.	$\chi^2 (12) = 20.79, p = .05$	.07	.99	.03
Model 2a	Metric invariance	Factor loadings are the same across samples. The respondents attribute the same meaning to the latent construct.	$\chi^2 (27) = 48.11, p = .007$	.07	.97	.11
Model 2b		Best fitting metric invariance model	$\chi^2 (18) = 26.64, p = .09$	.06	.99	.05
Model 3	Scalar invariance	The intercepts are the same across samples. The levels of the underlying items are equal across nations.	$\chi^2 (38) = 463.96, p < .001$	.27	.44	.37

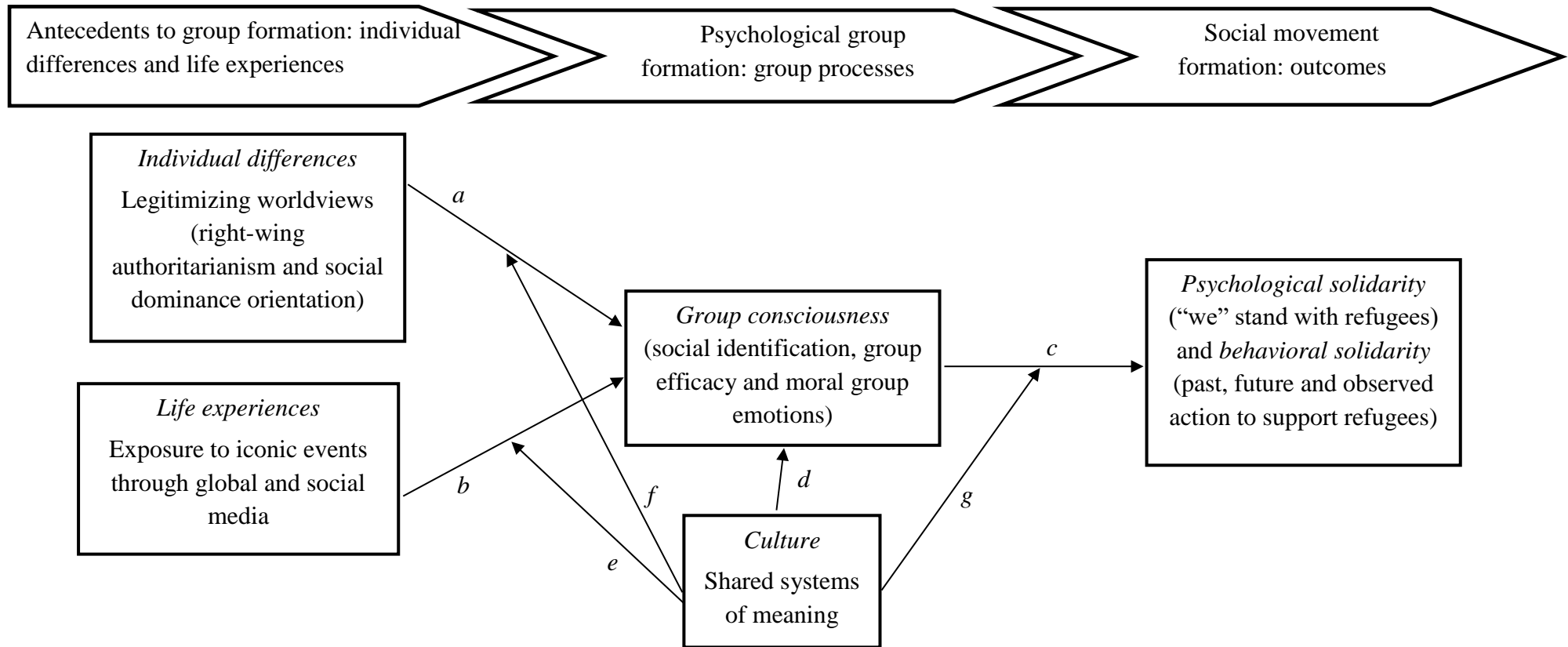


Figure 1. Conceptual adaptation of Duncan's (2012) integrated model. Key individual differences relating to legitimizing worldviews (*a*; RWA and SDO) and exposure to iconic events through social media (*b*) precipitate an emergent group consciousness. Group consciousness ("we are", "we believe" "we feel") is, in turn, the proximal predictor of solidarity with members of disadvantaged groups (*c*). Culture (shared systems of meaning) qualifies the antecedents of group formation (*a*, *b*), the outcomes of group formation (*g*), as well as the nature of the group itself (*d*).

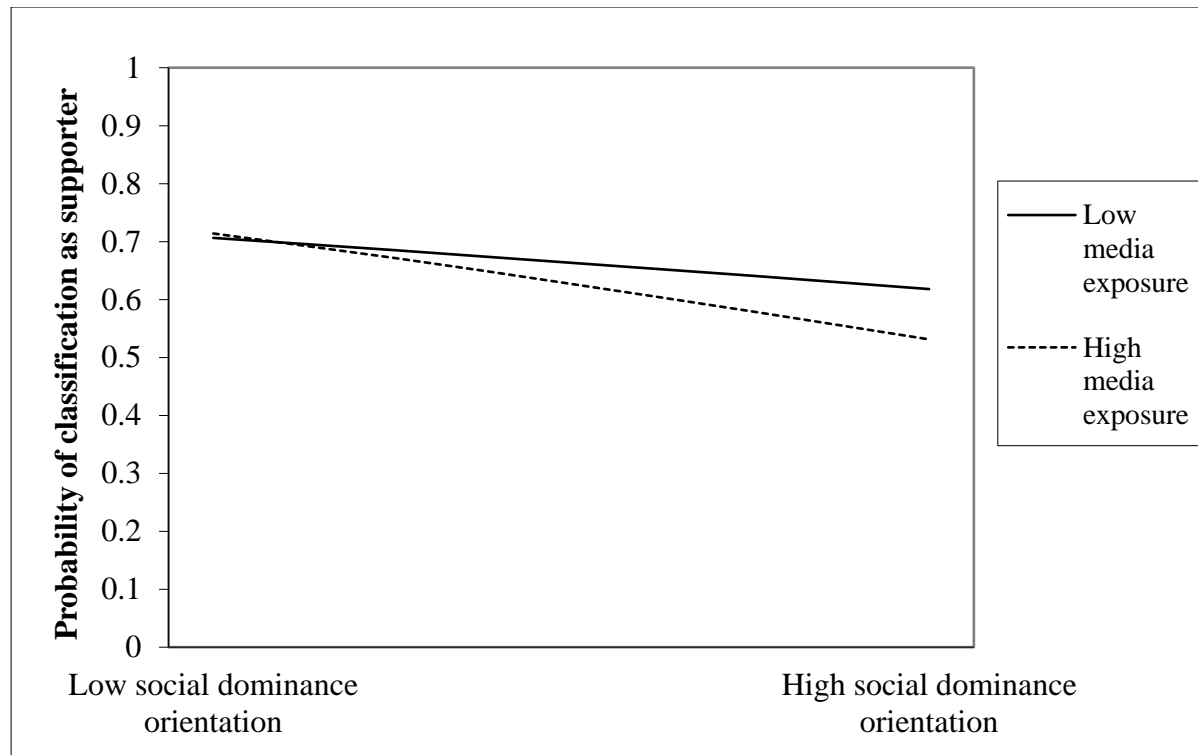


Figure 2. Probability of classification as a supporter of Syrian refugee decreases for those who are high in social dominance orientation and who report high levels of media exposure.

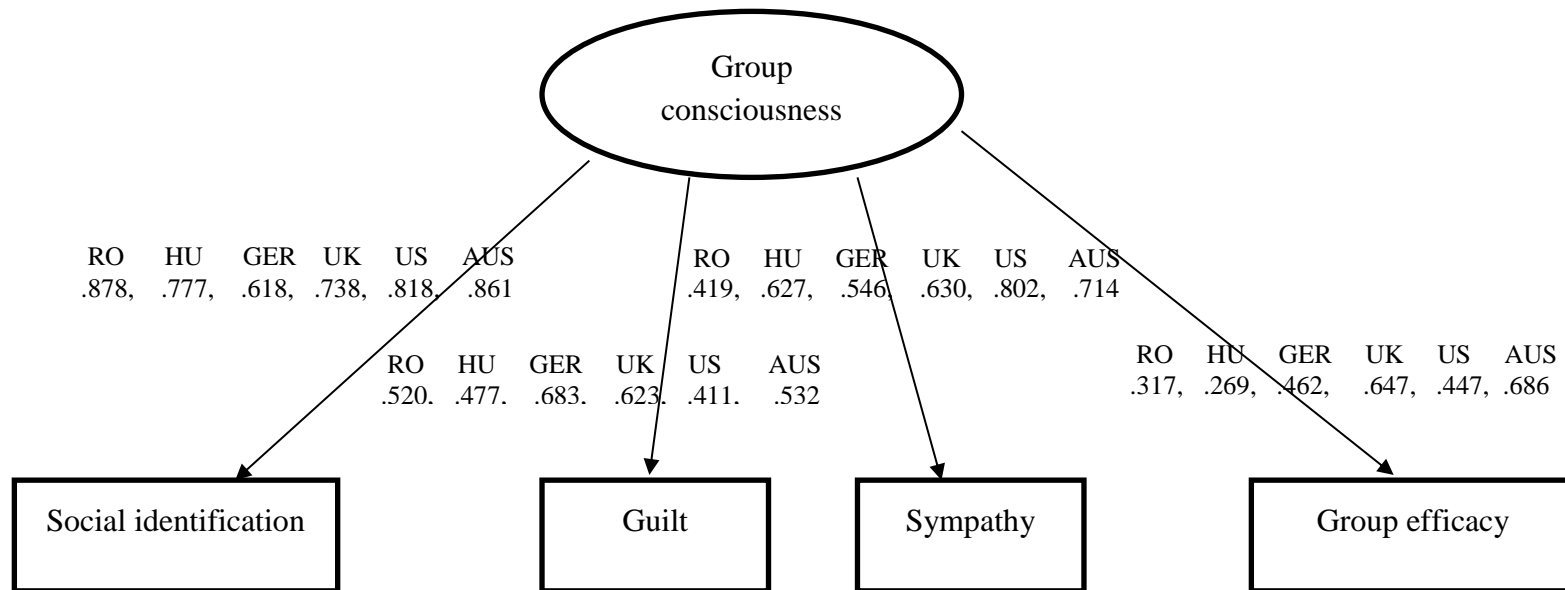


Figure 3. Loadings of the four indicators (social identification, guilt, sympathy and group efficacy) on the group consciousness factor for the six samples when allowed to vary freely. Model includes self-identified supporters only ($n = 955$).

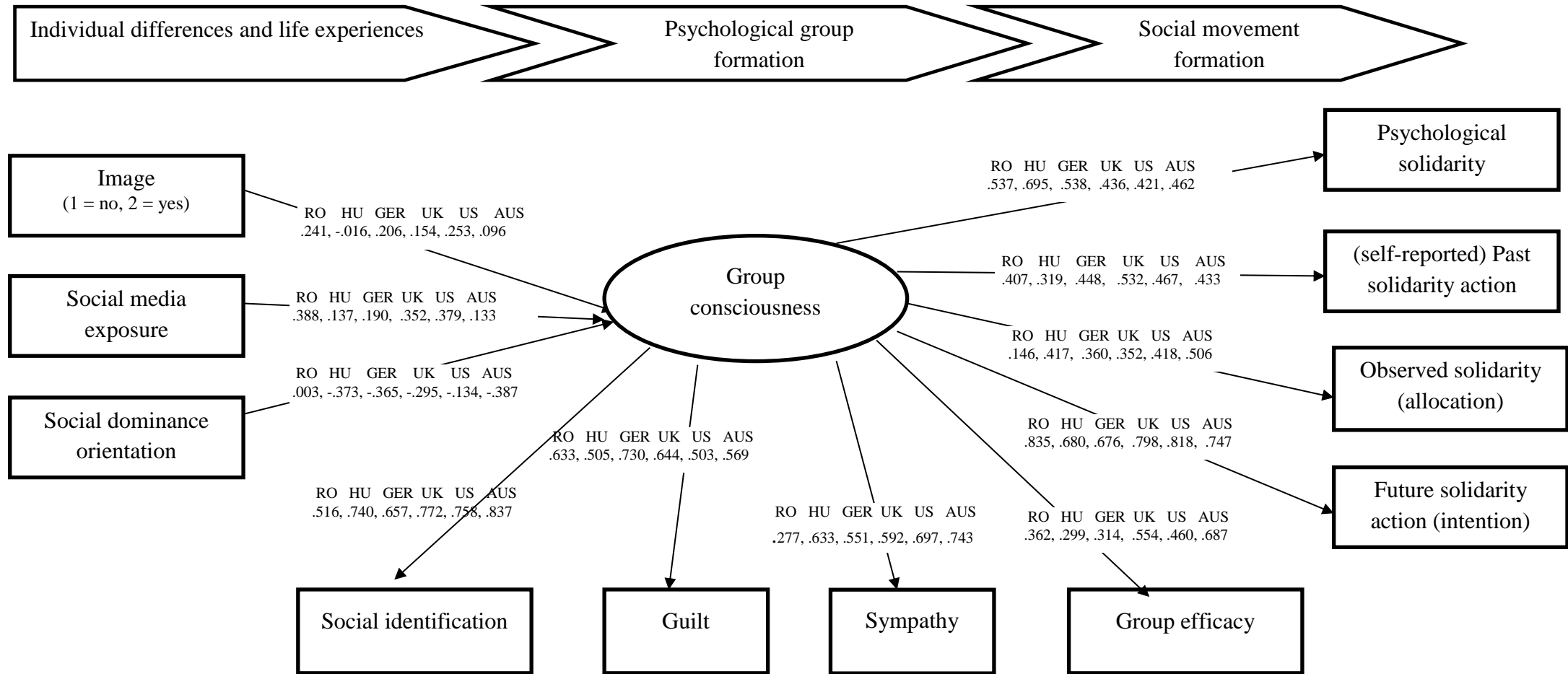


Figure 4. Weightings of the measurement and structural paths for the integrative model for the six samples, for self-identified supporters

only ($n = 955$).

Supplementary Analyses

Measurement Invariance

Our reporting follows the recommendations of van de Schoot, Lugtig and Hox (2012) in that we report the results from each of the key steps of measurement invariance (configural, metric, scalar and residual; Table 2) as well as an overall description of the final model (where it was variant and invariant) in the primary results section. However, within each of these key steps we undertook further model testing to identify the specific pattern of variance/invariance across our six samples (partial measurement invariance). Below we provide more detail about the specific pattern of invariance testing that we carried out for each of the tests of measurement invariance.

Metric invariance. Having established that our samples had different strengths of loadings to the group consciousness factor (by comparing Model 1 and 2a), our next tests sought to determine the specific pattern of those differences. Figure 3 shows the pattern of loadings for the indicators when they are freely estimated (i.e., not constrained to be similar). The loadings of social identification and sympathy were similar across samples but there was some variability in the loadings of guilt and efficacy. We therefore systematically released each of the parameters for the three indicators (identification was set to unity for model identification) to see if fit improved significantly compared to the baseline model. We found no improvements if sympathy was released, $\Delta\chi^2(10) = 9.81, p = .46$, but significant improvement for both guilt, $\Delta\chi^2(10) = 21.88, p = .02$ and efficacy, $\Delta\chi^2(10) = 18.55, p = .05$, confirming that guilt and efficacy play a different role across the six samples but that sympathy and identification had metric invariance (path d, Figure 1).

Figure 3 indicates that guilt seemed to play a lesser role in Hungary and the US, and a stronger role in Germany and the UK, with Romania and Australia falling in between; and efficacy played a negligible role in Hungary and Romania, but a stronger role in the UK and

Australia, with Germany and the US falling in between. Our final tests therefore set these pairs of nations to equality; that is, rather than constraining all of the weights to be different for each country, we constrained Germany and the UK to be the same for guilt, Hungary and Romania to be the same for efficacy and so on. Doing so significantly improved model fit compared to a model where all weights varied freely, $\Delta\chi^2(7) = 20.98, p = .004$ for efficacy, though this was marginal for guilt, $\Delta\chi^2(7) = 13.47, p = .06$. The model demonstrated excellent fit, $\chi^2(18) = 26.64, p = .09$, CFI = .99, RMSEA = .06, SRMR = .05. This became the model against which subsequent tests of scalar and residual invariance were compared (Model 2b, Table 2).

Scalar invariance. We adopted a similar logic for our tests of scalar invariance, in order to ascertain which items (measures) were scalar invariant/non-invariant. Table 1 shows that the mean levels of the items (efficacy, guilt, sympathy, identification) vary across countries but that there is more variation in the national means for efficacy (*Ms* 3.42-5.86), sympathy (*Ms* 4.54-6.27) and social identification (*Ms* 4.80-6.03), than there was in guilt (*Ms* 2.86-3.78). We systematically constrained the intercept for each of the items and compared it to the metric invariance model (above) in which all intercepts were unconstrained. Doing so significantly worsened fit for efficacy $\Delta\chi^2(5) = 236.31, p < .001$, identification, $\Delta\chi^2(5) = 162.02, p < .001$, guilt, $\Delta\chi^2(5) = 34.17, p < .001$ and sympathy, $\Delta\chi^2(5) = 149.66, p < .001$, suggesting that there are indeed differences in the mean levels of each of these items across the samples. The results of the tests of scalar invariance suggest that our model based on partial metric invariance but with intercepts allowed to be variant (above) is the best fitting model (Model 2b, Table 2).

Residual invariance. Typically residual variance is only calculated if metric and scalar invariance have been demonstrated but, for completeness, we tested whether the residual variances were the same across samples (residual invariance) by comparing the best-

fitting partial invariance model to one in which the residual variances were constrained to be the same. Overall model fit again was poor, $\Delta\chi^2(24) = 573.61, p < .001$, indicating that the explained variance for each of the indicators is not the same across samples. We adopted a similar logic for our tests of residual invariance to identify which items residuals' were different across samples. We therefore constrained the residuals for each of the items (separately) and compared this model to a baseline model in which none of the residuals were constrained. Doing so produced poorer fitting models when efficacy was constrained, $\Delta\chi^2(6)=96.13, p < .001$, identification $\Delta\chi^2(6)=234.65, p < .001$, guilt $\Delta\chi^2(6)=142.04, p < .001$ and sympathy, $\Delta\chi^2(6)=290.73, p < .001$. This pattern of findings suggests that there are differences in the explained variance of each of these measures across the samples. The final measurement model therefore allowed for all four item residuals to be variant across the samples.

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